

WHAT IS CLAIMED IS:

1. A link-type front suspension device in a vehicle, comprising:

a pair of right and left front forks rotatably supported at a front part of a chassis frame;

a front wheel supporting arm having one end rotatably attached to lower ends of said pair of right and left front forks and having the other end rotatably supporting an axle of a front wheel;

a cushion arm rotatably attached to a bottom bridge in a vertical direction;

a push rod rotatably having a lower end connected to an intermediate part of the front wheel supporting arm and having upper end connected to the cushion arm; and

shock absorbers installed between the upper part of said front fork and said cushion arm,

wherein said push rod is a split structure including a pair of right and left rod members, lower ends of the rod members being rotatably attached to the front wheel supporting arm, and upper ends of the rod members being rotatably attached to said cushion arm.

2. The link-type front suspension device in a vehicle according to claim 1, wherein the rod members constituting said push rod are arranged at rear sides of said pair of right and left front forks in such a way that the rod members overlap the front forks as seen in a front elevational view.

3. The link-type front suspension device in a vehicle according to claim 1, wherein each of the right and left front forks includes an upper pipe portion fixed to a top bridge and the bottom bridge, and a lower axle holder portion having an upper end into which the upper pipe portion is inserted and a lower end fixed to the front wheel supporting arm, and

wherein a recess facing the front wheel is formed at an intermediate portion of each of the lower axle holder portions, so that a torque link connected to each of the lower axle portions in the recess is substantially overlapped by the lower axle holder portion as seen from a front elevation view.

4. The link-type front suspension device in a vehicle according to claim 3, wherein the torque links being connected in the recesses prevents a reduction of a clearance between portions of the right and left front forks above a front fender.

5. The link-type front suspension device in a vehicle such as a motorcycle according to claim 1, wherein the cushion arm is formed as a plate and is arranged such that a rear end of the plate springs upward when the shock absorbers are compressed, thus assuring a space is maintained between the cushion arm and a fender over the front wheel.

6. The link-type front suspension device in a vehicle according to claim 1, wherein a space is provided between lower ends of the shock absorbers and a front fender so that during operation air strikes a radiator of the engine.

7. The link-type front suspension device in a vehicle according to claim 1, wherein the shock absorbers include a first shock absorber provided with a spring for absorbing a load, and a second shock absorber provided with a damper for attenuating vibration caused by the spring.

8. The link-type front suspension device in a vehicle according to claim 1, wherein the front wheel supporting arm extends from the axle of the front wheel in a forward direction.

9. The link-type front suspension device in a vehicle according to claim 1, wherein the front wheel supporting arm extends from the axle of the front wheel in a rearward direction.

10. The link-type front suspension device in a vehicle according to claim 1, further comprising supporting stays fixed to the axle of the front wheel, and a front fender supported by the supporting stays,

wherein an intermediate part of each of the supporting stays is supported by a link placed between the supporting stay and the push rod, the links overlapping the front forks as seen in a front elevational view.

11. A link-type front suspension device in a motorcycle, comprising:
a pair of right and left front forks with top portions thereof passing through holes of an upper bracket and being fixed to a top bridge attached to a chassis frame;

a front wheel supporting arm having one end rotatably attached to lower ends of said pair of right and left front forks and having the other end rotatably supporting an axle of a front wheel;

a cushion arm rotatably attached to a bottom bridge in a vertical direction;

a push rod rotatably having a lower end connected to an intermediate part of the front wheel supporting arm and having upper end connected to the cushion arm; and

shock absorbers installed between the upper bracket and said cushion arm,

wherein said push rod is a split structure including a pair of right and left rod members, lower ends of the rod members being rotatably attached to the front wheel supporting arm, and upper ends of the rod members being rotatably attached to said cushion arm.

12. The link-type front suspension device in a motorcycle according to claim 11, wherein the rod members constituting said push rod are arranged at rear sides of said pair of right and left front forks in such a way that the rod members overlap the front forks as seen in a front elevational view.

13. The link-type front suspension device in a motorcycle according to claim 11, wherein each of the right and left front forks includes an upper pipe portion fixed to the top bridge and the bottom bridge, and a lower axle holder portion having an upper end into which the upper pipe portion is inserted and a lower end fixed to the front wheel supporting arm, and

wherein a recess facing the front wheel is formed at an intermediate portion of each of the lower axle holder portions, so that a torque link connected to each of the lower

axle portions in the recess is substantially overlapped by the lower axle holder portion as seen from a front elevation view.

14. The link-type front suspension device in a motorcycle according to claim 13, wherein the torque links being connected in the recesses prevents a reduction of a clearance between portions of the right and left front forks above a front fender.

15. The link-type front suspension device in a motorcycle such as a motorcycle according to claim 11, wherein the cushion arm is formed as a plate and is arranged such that a rear end of the plate springs upward when the shock absorbers are compressed, thus assuring a space is maintained between the cushion arm and a fender over the front wheel.

16. The link-type front suspension device in a motorcycle according to claim 11, wherein a space is provided between lower ends of the shock absorbers and a front fender so that during operation air strikes a radiator of the engine.

17. The link-type front suspension device in a motorcycle according to claim 11, wherein the shock absorbers include a first shock absorber provided with a spring for absorbing a load, and a second shock absorber provided with a damper for attenuating vibration caused by the spring.

18. The link-type front suspension device in a motorcycle according to claim 11, wherein the front wheel supporting arm extends from the axle of the front wheel in a forward direction.

19. The link-type front suspension device in a motorcycle according to claim 11, wherein the front wheel supporting arm extends from the axle of the front wheel in a rearward direction.

20. The link-type front suspension device in a motorcycle according to claim 11, further comprising supporting stays fixed to the axle of the front wheel, and a front fender supported by the supporting stays,

wherein an intermediate part of each of the supporting stays is supported by a link placed between the supporting stay and the push rod, the links overlapping the front forks as seen in a front elevational view.